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U.S. Department of Defense

MHS MILITARY HEALTH SYSTEM

OCIO Office of the Chief Information Officer



HIMSS 2010

03 / 02 / 10

The Way Forward for the Military's Electronic Health Record (EHR)

COL Claude Hines Jr., MS

Deputy Program Executive Officer (DPEO)

Innovation and Delivery (I&D)

Joint Medical Information Systems (JMIS)

Military Health System (MHS)

Tuesday, March 2, 2010

8:30 – 9:30 am

HIMSS10 Annual Conference & Exhibition

Georgia World Conference Center

Atlanta, GA

Conflict of Interest Disclosure

COL Claude Hines Jr., MS

Has no real or apparent
conflicts of interest to report.

Session Objectives

- **Objective 1:** Understand DHIMS's role within the Military Health System and how DHIMS contributes to the continuum of care and medical surveillance from CONUS to the Theater of Operations to the Veterans Affairs.
- **Objective 2:** Examine challenges faced by the Military's deployed medical community and a demonstration of how DHIMS provides technology solutions.
- **Objective 3:** Understand the enhancements and new capabilities that DHIMS is engineering and deploying for the military's EHR.
- **Objective 4:** Identify the way ahead for the EHR and what that means for the military's medical facilities, communities and users

PEO JMIS in the Department of Defense (DoD)



Department of Defense

Army

Navy

Marines

Air
Force



Military Health System

Joint Medical Information Systems
Office of the Chief Information Officer

Defense Health
Support System

Defense Health
Information
Management System

Tri-Service Infrastructure
Management
Program Office

JMIS Program Executive Office Leadership



MaryAnn Rockey
Program Executive
Officer (PEO)



Nathan Zee
DPEO,
Business Operations &
Process Management
(BO&PM)



Stone Quillian
DPEO,
Federal & Industry
Alliances (F&IA)



COL Claude Hines Jr.
DPEO,
Innovation & Delivery
(I&D)

DPEO, Innovation and Delivery (I&D)

- Systems Engineering
- Information Assurance
- Developmental Test & Evaluation (DT&E)
- Configuration Management
- Technical Requirements Design
- Data Architecture
- Systems Architecture
- Agile Development and Delivery (“Speed to Market”)
- Product Risk Management/QA
- Special Project Development
 - White House Medical Unit (WHMU)
 - North Chicago Federal Health Care Center (FHCC)
- Application Training
- Common Services
- Distributed Development
- Technical Integration and Interoperability

DHSS Areas of Responsibility

Clinical Support, Medical Logistics, and Resource Management

- Defense Medical Logistics Standard Support
- DMLSS Customer Assistance Module
- Defense Occupational and Environmental Health Readiness System – Hearing Conservation/Industrial Hygiene
- ESSENCE Medical Surveillance
- Joint Medical Asset Repository
- Patient Movement Items Tracking System
- Centralized Credentials Quality Assurance System
- Nutrition Management Information System
- Special Needs Program Management Information System
- Protected Health Information Management Tool
- Third Party Outpatient Collection System
- Defense Medical Human Resources System-Internet
- Expense Assignment System Version 4
- Managed Care Forecasting & Analysis System
- MHS Insight
- MHS Learn
- TRICARE On-line
- Clinical Data Mart
- Common User Database
- TRICARE Encounter Data
- Coding & Compliance Editor
- Patient Safety Reporting
- MHS Management Analysis and Reporting
- MHS Data Repository
- Patient Encounter Processing and Reporting
- Prospective Payment System Business Planning Tool and Reconciliation Tool
- Theater MEDLOG Support

TIMPO Areas of Responsibility

Tri-Service Infrastructure Management

Services

- Communications and Computing Infrastructure (C&CI) engineering
- Information assurance
- Capacity management
- Performance measurement
- Hardware/software maintenance & sparing
- Configuration management
- On-site network engineers and specialists
- Network support services
- Circuit management
- MHS Help desk

Components

- Computing centers
- Wide area network
- Network protection
- Local servers
- Local area network
- End user devices

Mission Elements

- Plan, program, acquire, implement and sustain peacetime information technology infrastructure and provide support services for MHS centrally managed products
- Provide the sharing of common infrastructure services

DHIMS Areas of Responsibility

Clinical and Theater Systems and Capabilities

- Ancillaries (Lab, Rad, Pharm)
- Blood Management
- Case Management
- Clinical Decision Support
- Consults/Referral Management
- Dental
- DoD/VA Data Sharing
- Enterprise-Wide Scheduling & Registration
- Health Surveillance
- Imaging
- Inpatient
- Longitudinal Health Record
- Medical Command and Control
- Medical Planning
- Medical Readiness
- Order Entry/Results Retrieval
- Outpatient
- Patient Administration
- Patient Tracking
- Personal Health Record
- Population Health
- Preventive Health
- Spectacle Requisition
- Tele-Health
- Theater Occupational/ Environmental/ Radiological Health
- Trauma Registry Documentation
- Traumatic Brain Injury/Behavioral Health
- Utilization Management
- Veterinary Medicine
- Workload Accounting

Understanding the Value of an EHR in the Department of Defense

Why we must do it

- Warfighter Mission
- Enables DoD's healthcare part of the Virtual Lifetime Electronic Record (VLER)
- Document and Monitor Wounded, Ill and Injured
- Enhanced Health Outcomes
- Cost Effectiveness
- Better Health Resource Management
- Health Community Satisfaction
- Patient Centric Medical Home
- Enhanced Access and Quality of Care
- Enhanced Patient Safety
- Foundation for Benefits Assessment

Who we do it for



Service members,
Retirees, their families,
other beneficiaries, the
Military Health System
(MHS) community,
Operational Commanders,
and other stakeholders



What we will achieve

Right Information

Comprehensive
Integrated
Interoperable
Intuitive
Accurate

Right Community

Health Care Team
Patients
Commanders
Veterans Affairs
Nation (NHIN)

Decision Support for High Quality Cost Effective Healthcare

Right Place

Global Presence
Theater Operations
Contingency Operations
Austere Environments
Mature Communications
Mobile Operations

Right Time

Fast
Dependable
Clinical Workflow
Highly Available
Time to Market
Innovative

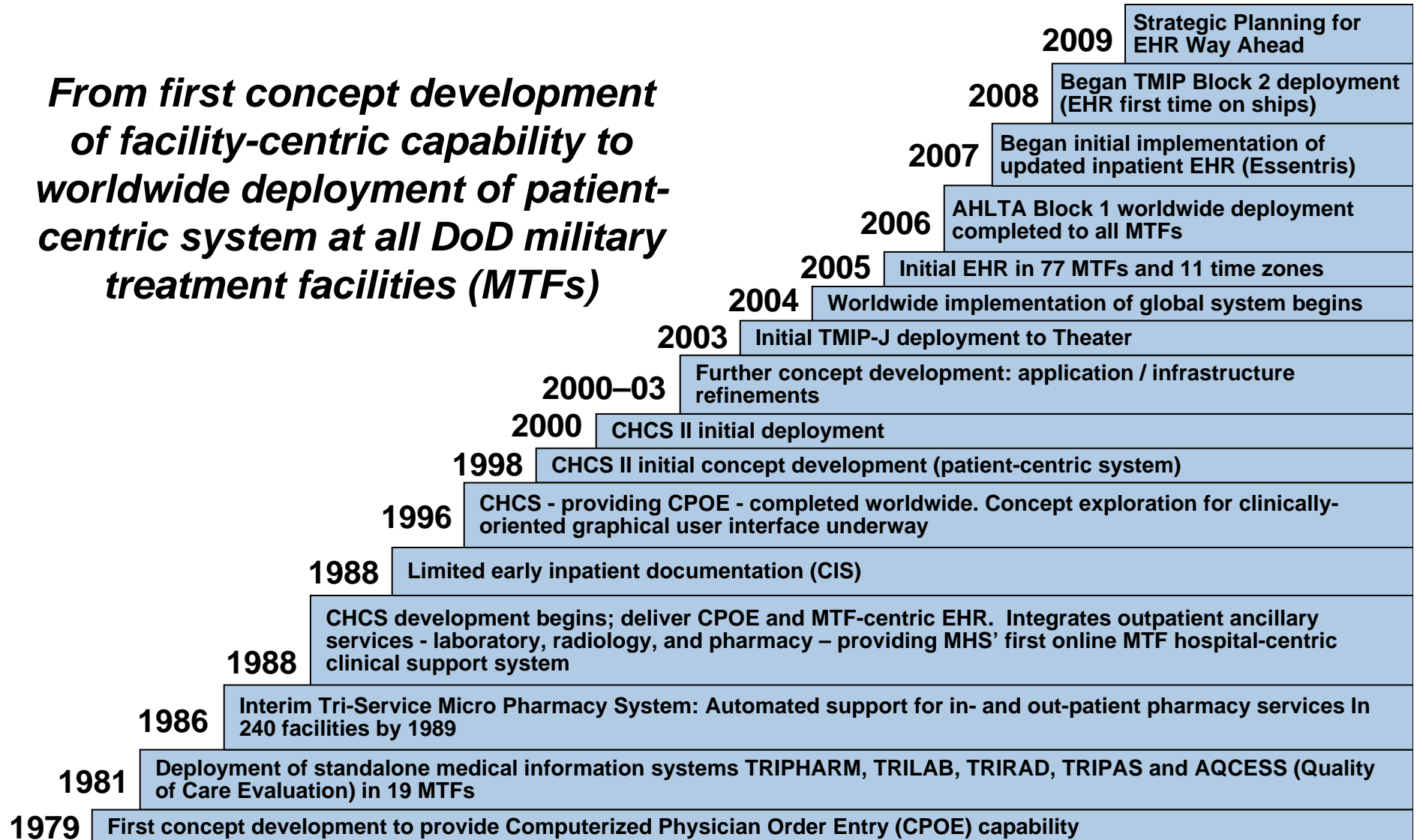
DoD's Healthcare Information Support for the Warfighter Mission

- Medical Situation Awareness for Command and Control
- Force Health Protection
- Medical Readiness
- **Transient Patient Population**
- **Transient Healthcare Team**
- Austere Environments
 - Theater Operations
 - Shipboard Operations
 - Medical/Aeromedical Evacuation
- Security Requirements
 - Secret Internet Protocol Router (SIPRNet)
 - DoD Information Assurance Posture
- DoD Acquisition Process
 - Interdependencies with other departmental programs



Evolution of DoD's Electronic Health Record

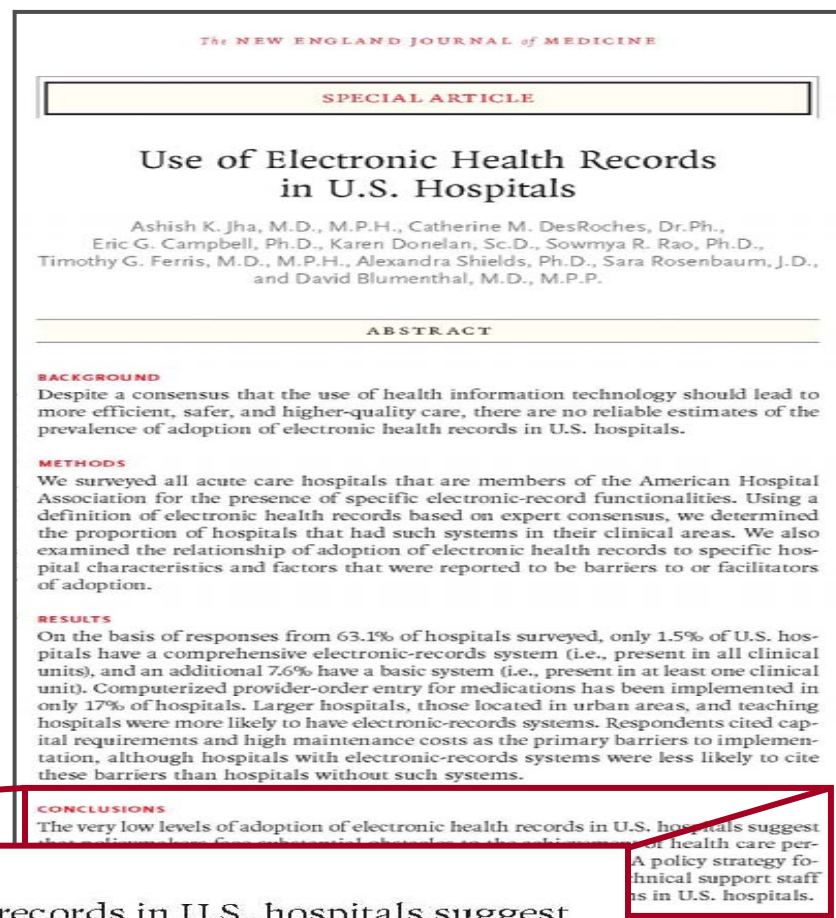
From first concept development of facility-centric capability to worldwide deployment of patient-centric system at all DoD military treatment facilities (MTFs)



New England Journal of Medicine Article

“Very low levels of adoption of electronic health records in US Hospitals”

- “1.5% US Hospitals have a comprehensive electronic records system”
- “7.6% US Hospitals have a basic electronic records system”
- “17% US Hospitals have computerized provider-order entry for medications”



CONCLUSIONS

The very low levels of adoption of electronic health records in U.S. hospitals suggest that policymakers face substantial obstacles to the achievement of health care performance goals that depend on health information technology. A policy strategy focused on financial support, interoperability, and training of technical support staff may be necessary to spur adoption of electronic-records systems in U.S. hospitals.

DoD EHR Family of Systems

- **AHLTA-Garrison Outpatient Documentation**

- Covers every time zone
- 77,000+ active users
- 110,000+ end user devices
- 140,000+ new encounters daily
- 9.6+ million beneficiaries with clinical data
- 65+ Terabytes (mostly non-image)

- **Essentris® Inpatient Documentation**

- 30 Sites

Supporting transient patient populations and transient healthcare teams

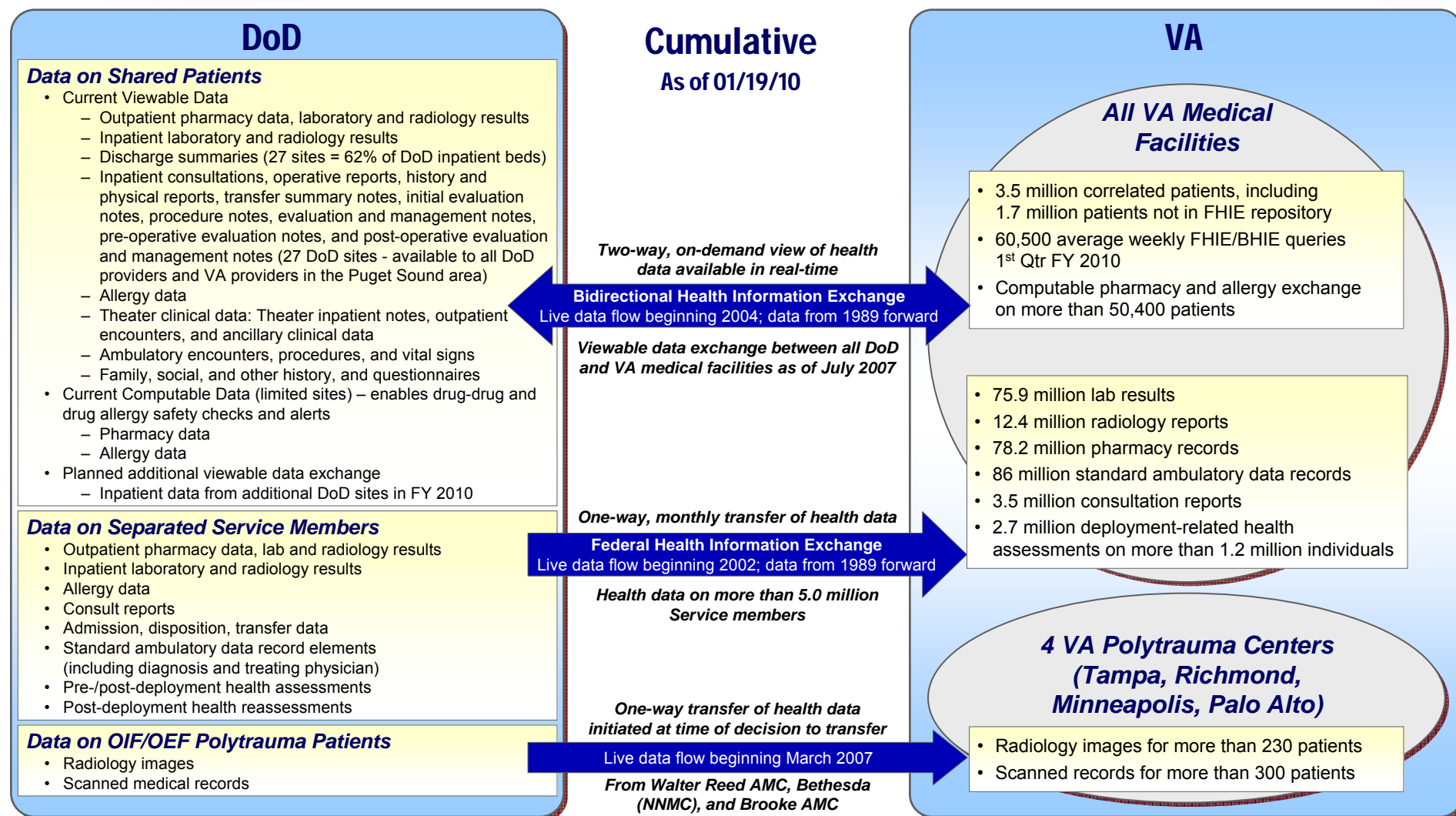
- **Military Treatment Facilities**

- 60+ Hospitals
- 350+ Medical Clinics
- ***White House Medical Unit***

- **AHLTA-Theater (As of 31 Jan 2010)**

- 15 Theater Hospitals, 262 Forward Resuscitative sites
- 15 U.S. Naval Ships
- 8.36 million orders of ancillary services (laboratory, radiology, pharmacy)
- 3.16 million outpatient encounters captured in AHLTA-Theater

Current DoD/VA Health Information Exchange



Sharing more non-billable health information today than any two health organizations in the world

AHLTA Enterprise Outpatient Documentation System

Visit Booth
#3107
in Hall C

- Provides **worldwide secure online, role-based access** to longitudinal health records 24 hours a day, 7 days a week
- Enables MHS providers to **document a patient's health information and history**
- Data is consolidated in a **single clinical database** known as the Clinical Data Repository (CDR)
 - **VA providers access health data** via the Bidirectional Health Information Exchange (BHIE)

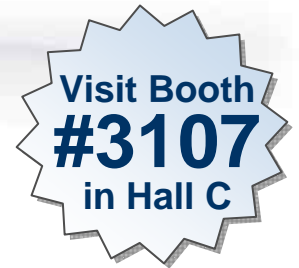
The screenshot displays the AHLTA Enterprise Outpatient Documentation System interface. At the top, the patient's name is "QQQTEST, ASHLEY" with ID "20/803-65-0202", age "44yo", sex "F", and date of birth "DOB:02 Feb 1965". The interface includes a "Folder List" on the left with categories like "Consult Log", "Patient List", "Reports", "Tools", and "Web Browser". The main area shows a "Reminders" table with columns for "Select", "Modify", "Reminder", "Ordered", "Due", and "Default Order/Documentation". The table lists various reminders such as "Blood Pressure", "Foot Exam", "Glucose Self Monitoring Results Review", "Glycosylated Hemoglobin A1c", "Wellness", "Papanicolaou (PAP Smear) Screening", "Tobacco Cessation Counseling", and "Verify HIV test <1yr ago". A legend at the bottom indicates the status of reminders: "Due" (red), "Due within 1 month" (yellow), "Addressed Today or Ordered, but not resulted" (green), "Deactivated" (grey), "Series Completed" (blue), and "Show" (white). A "Review of Immunizations" section is also visible at the bottom right.

Select	Modify	Reminder	Ordered	Due	Default Order/Documentation
<input type="checkbox"/>	<input type="checkbox"/>	Registries			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Blood Pressure			Enter Blood Pressure
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Foot Exam			Document Complete
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Glucose Self Monitoring Results Review		12/3/2008	Document Complete
<input type="checkbox"/>	<input type="checkbox"/>	Glycosylated Hemoglobin A1c			Default Order (NMC Portsmouth): HEMOG
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Wellness			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Papanicolaou (PAP Smear) Screening		8/8/2003	DOCUMENT PAPANICOLAOU (PAP SMI
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Tobacco Cessation Counseling		9/17/2008	OTHER THERAPIES ORDER: Interventi
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Verify HIV test <1yr ago		7/15/2008	DOCUMENT VERIFY HIV TEST <1YR A

Composite Health Care System (CHCS)

- Serves as the foundation for AHLTA
 - Practice management and ancillary services
- Through AHLTA, CHCS enables DoD providers to electronically **order laboratory and radiology tests/services, retrieve test results, and order and prescribe medications**
- Supports multiple healthcare administration activities, including:
 - Patient administration
 - Patient scheduling
 - Medical billing
 - Medical service accounting
 - Workload assignments

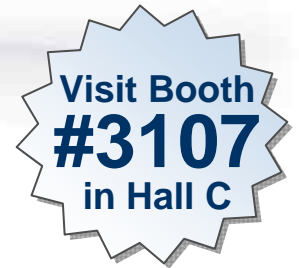
Military's Inpatient Documentation Solution (Essentris®)



- Supports **inpatient and Emergency Department documentation**
- Deployed at MHS sites
 - Will be deployed to more than 90% of beds by the end of FY2011
- Information is shared with the Department of Veterans Affairs
- Integrates with medical equipment (e.g., fetal monitors, physiological monitors)



AHLTA-Theater



- **Customizes Garrison-based AHLTA EHR capabilities to deployed medical units**
 - Same look and feel as Garrison
- Enables **complete clinical care documentation**, medical supply and equipment tracking, patient movement visibility and health surveillance in Theater environments (low/no communications)
- **Data is consolidated into a single database** known as the Theater Medical Data Store (TMDS)
 - Data is then transmitted to the Clinical Data Repository (CDR) to provide secure worldwide access to Service members' health records

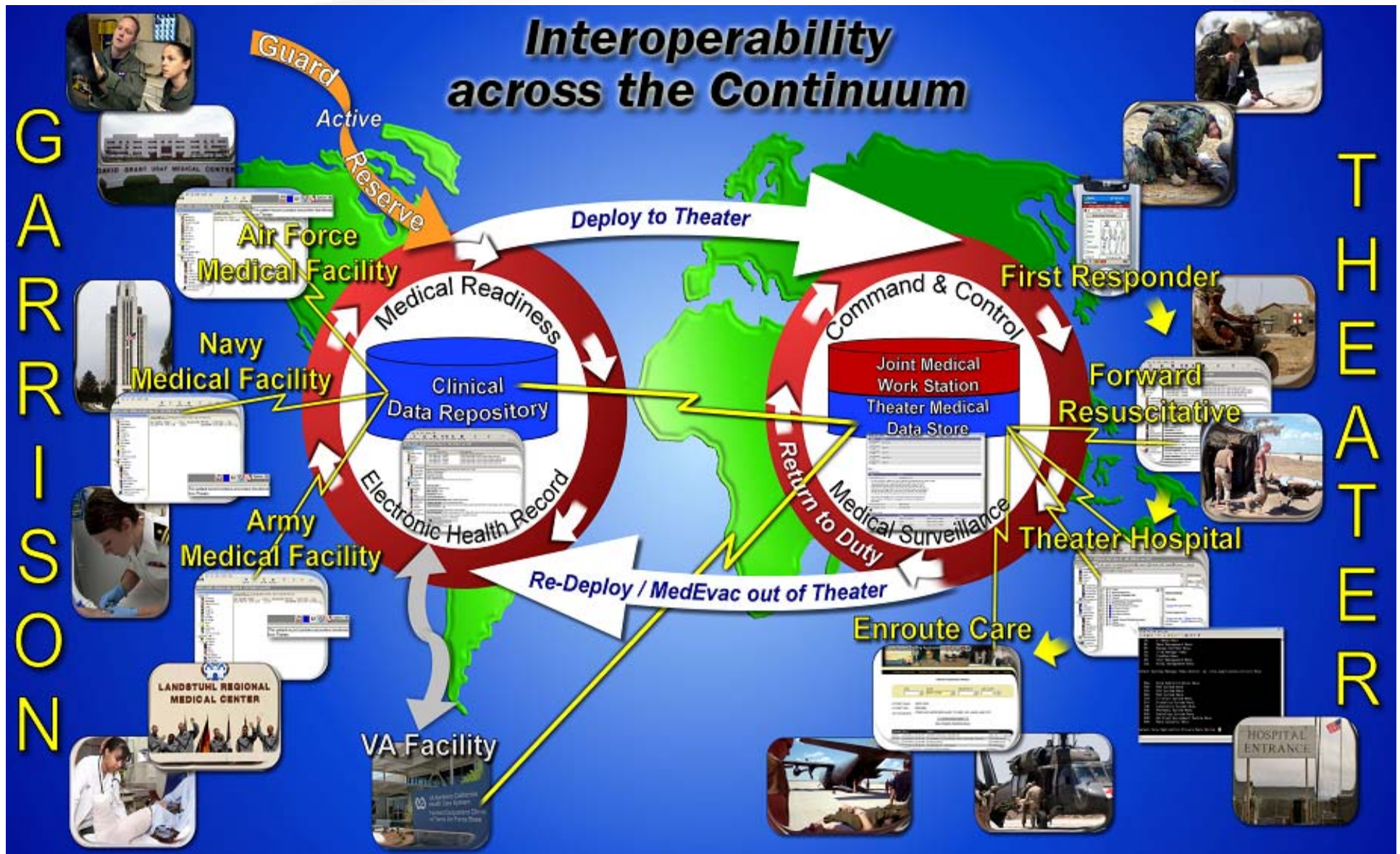
White House Medical Unit (WHMU)

- WHMU serves the President, Vice President, their families and provides emergency coverage to White House visitors and guests
- Providers use AHLTA-Theater (virtualized) and Theater Medical Data Store (TMDS)
- Access AHLTA-Garrison and the Composite Health Care System (CHCS) through a remote connection with the National Naval Medical Center (NNMC), Bethesda, Md.
 - CHCS enables DoD providers to electronically perform patient appointment processes and scheduling, order laboratory tests, retrieve test results, authorize radiology procedures and prescribe medications

Currently in use at:

- White House Residence Clinic
- Camp David
- Air Force One
- New Executive Office Building (NEOB)
- Eisenhower Executive Office Building (EEOB)
- Marine Helicopter Squadron 1 (HMX)
- Private Residence of the Vice President (Naval Observatory)

EHR Support to the Continuum of Care

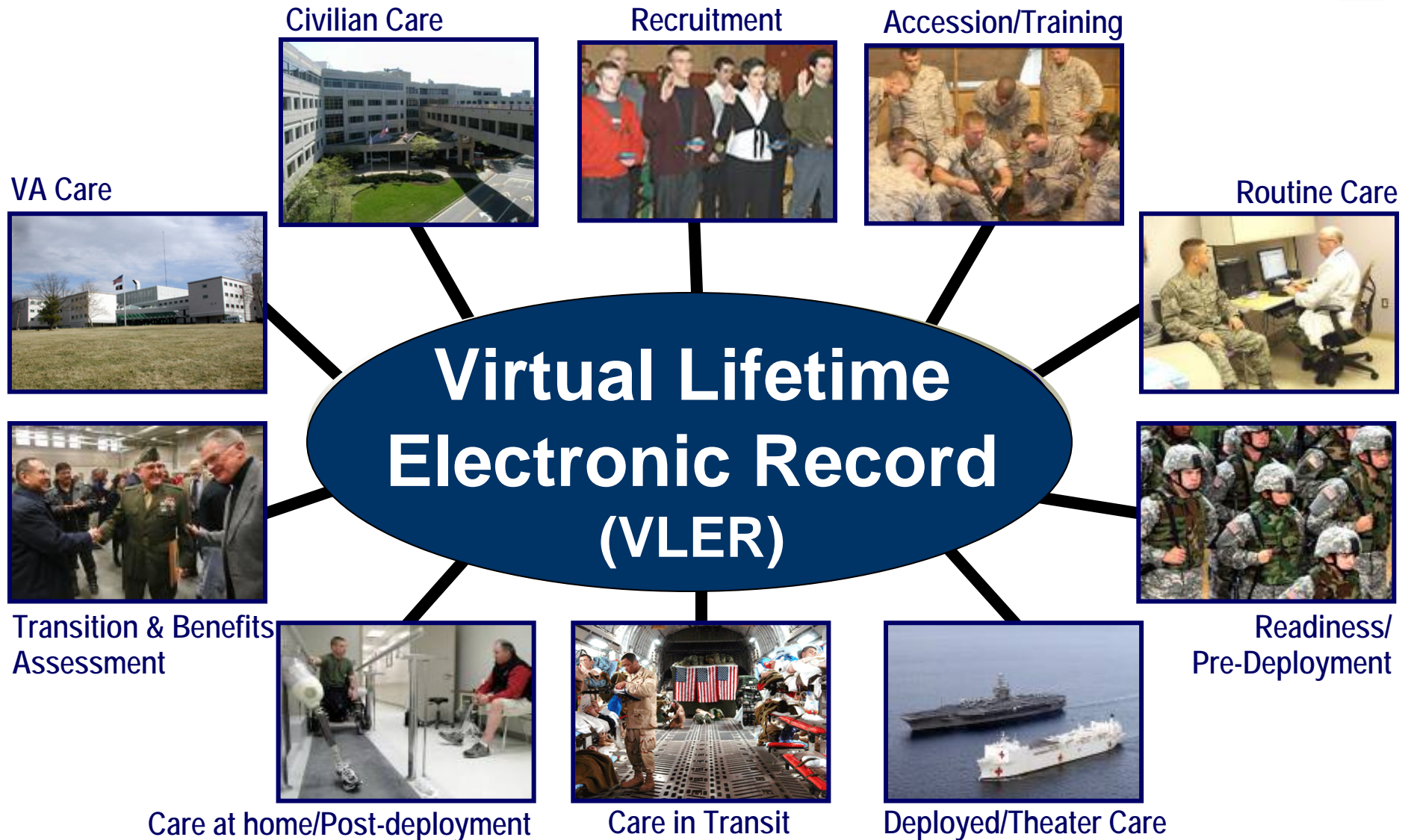




Calendar Year 2010 Health IT Initiatives

Service Member Health Care Continuum

Health Care is Local...Information is Global



VLER Health Phased Approach

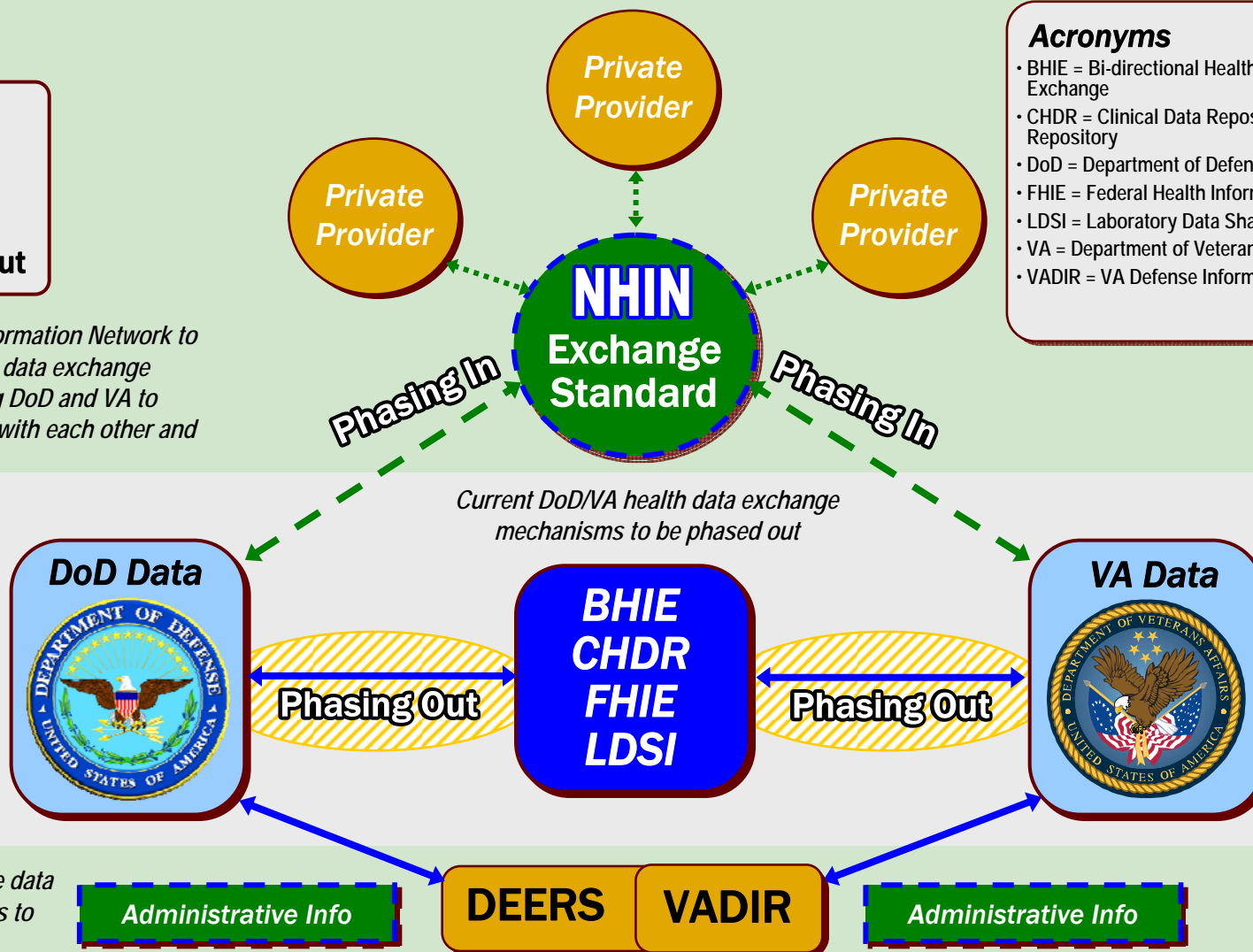
Legend



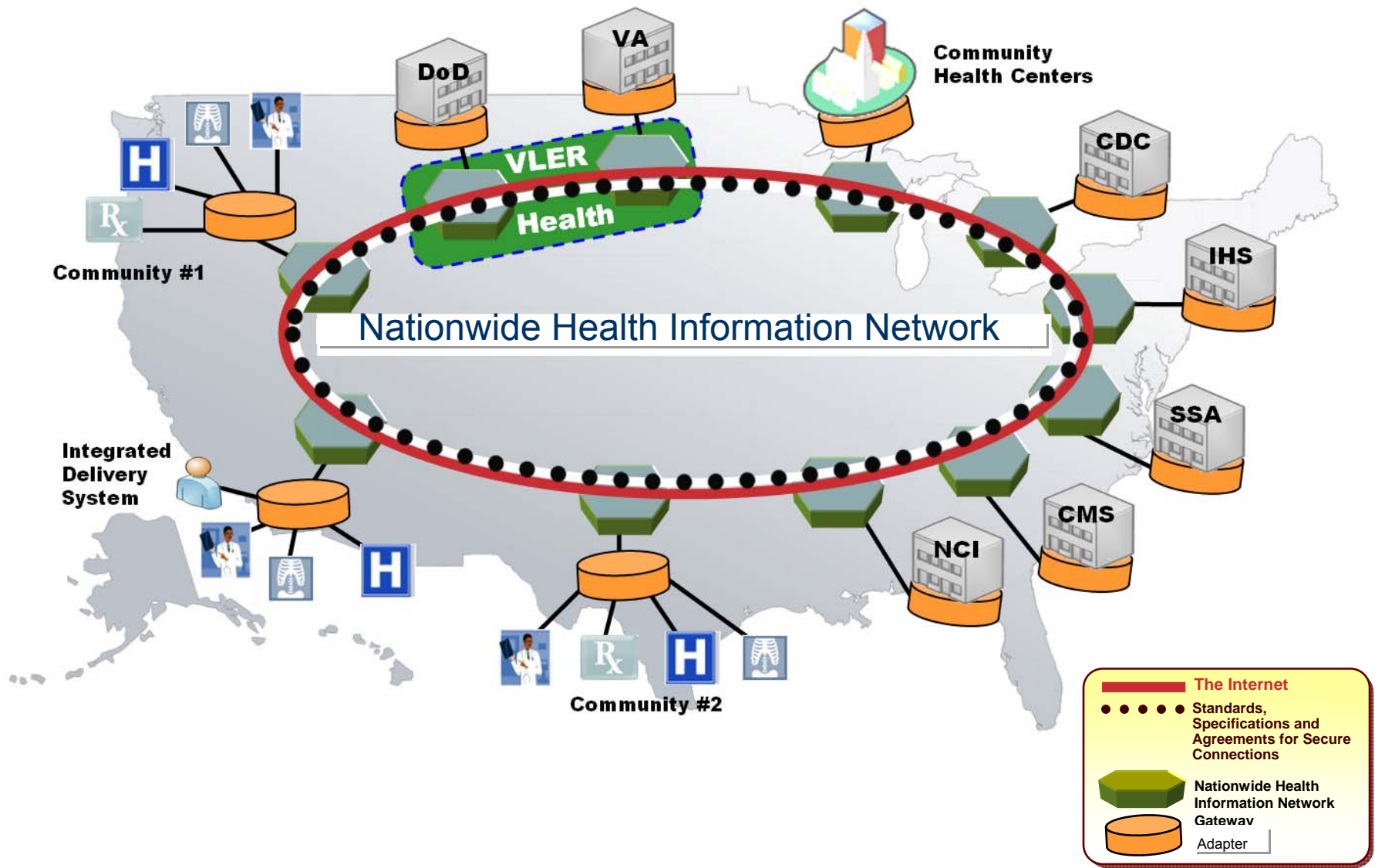
Nationwide Health Information Network to replace current health data exchange mechanisms, enabling DoD and VA to exchange health data with each other and with private providers

Acronyms

- BHIE = Bi-directional Health Information Exchange
- CHDR = Clinical Data Repository/ Health Data Repository
- DoD = Department of Defense
- FHIE = Federal Health Information Exchange
- LDSI = Laboratory Data Sharing Initiative
- VA = Department of Veterans Affairs
- VADIR = VA Defense Information Repository

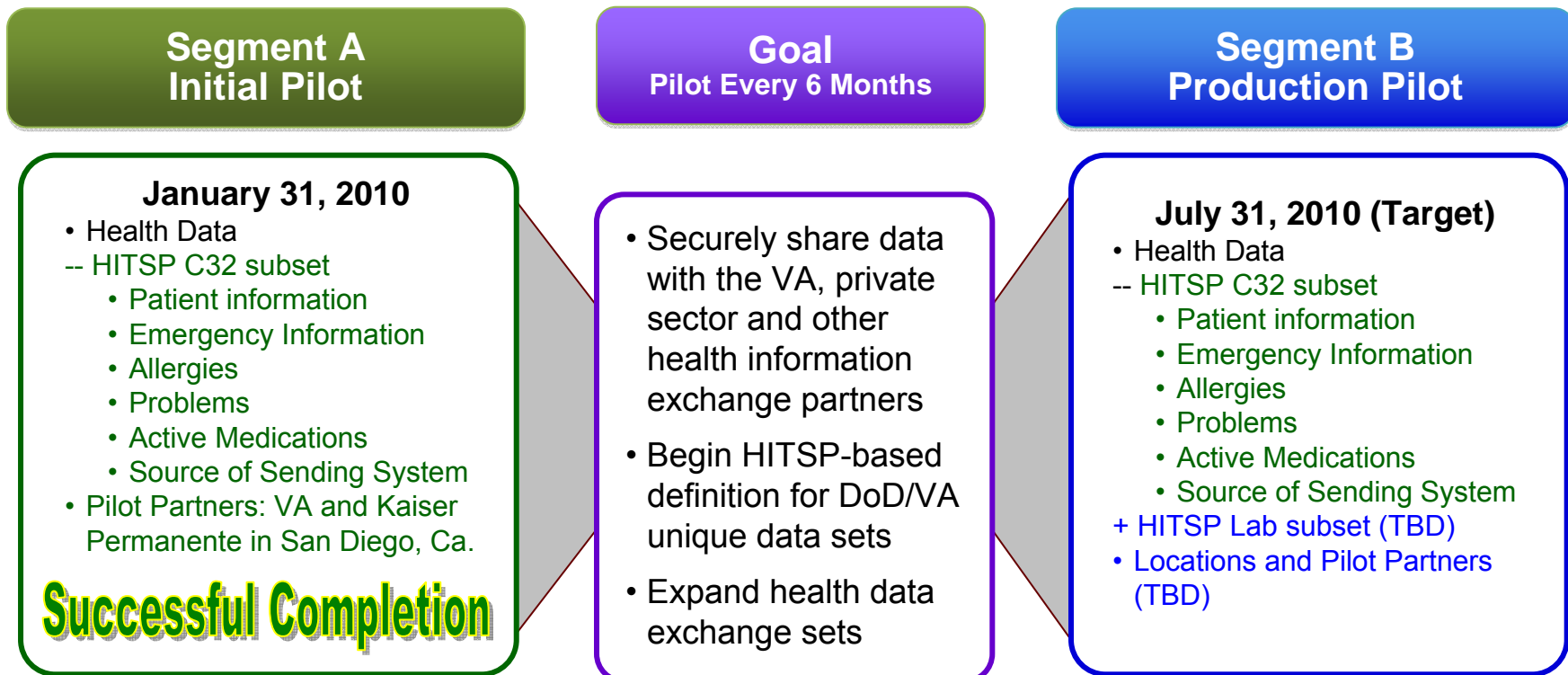


Nationwide Health Information Network



VLER Health Phase 1

Leverages the Nationwide Health Information Network to improve health data sharing between the DoD, VA and network care



- **HITSP:** The American National Standards Institutes (ANSI) Health Information Technology Standards Panel, which develops national specifications for interoperable electronic health records.
- **HIE:** Health Information Exchange

The FHCC primary goal is “integration” of:

- The NCVAMC
- The newly constructed Naval Ambulatory Care Center, located on the NCVAMC campus (replaces 11 story former Navy Hospital)
- The Navy Fleet Medicine Clinics
 - Associated with NSGL, i.e., Recruit Training Command (RTC)
- The Training Support Center (TSC) and,
- VA Based Community Outpatient Clinics

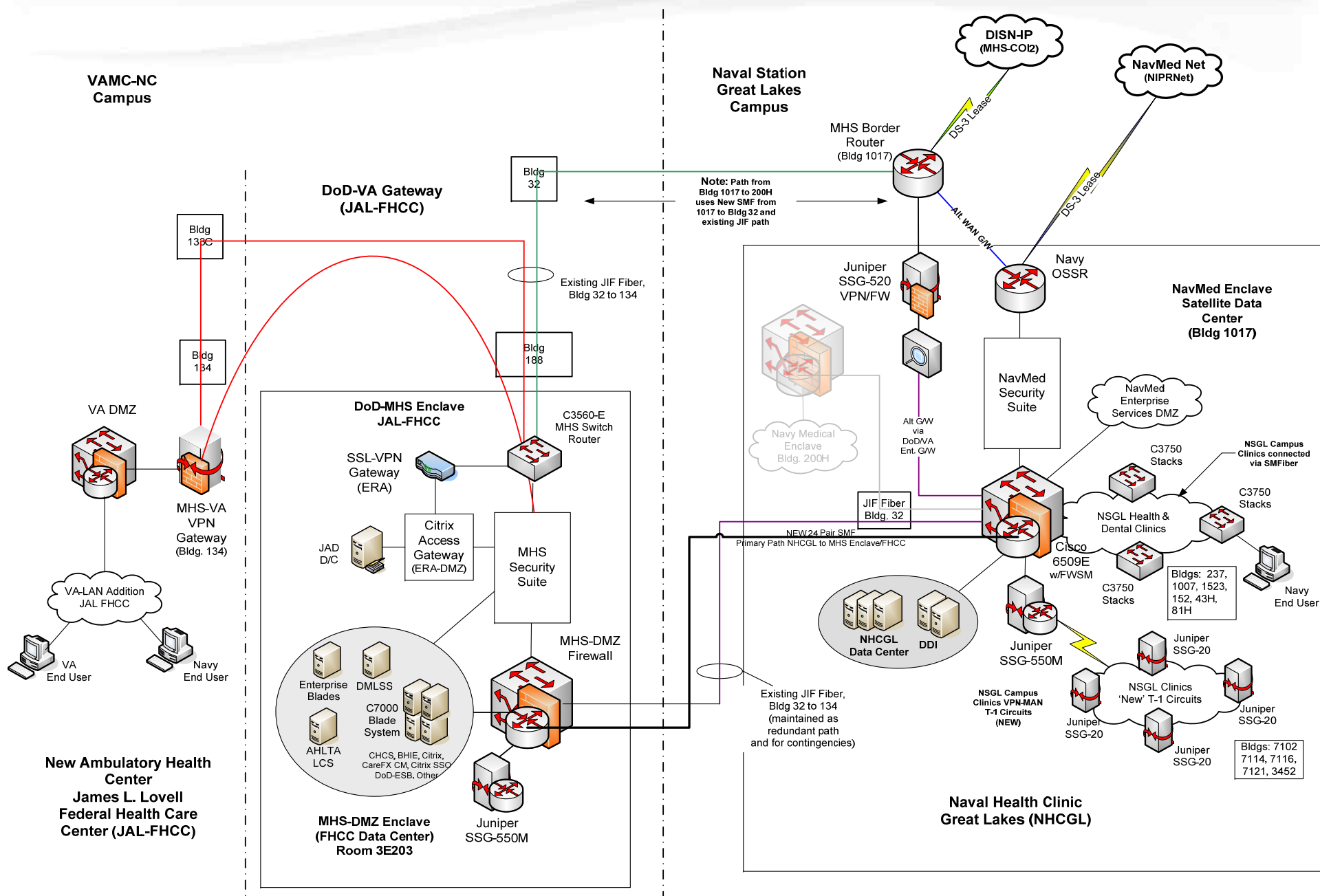
North Chicago Federal Health Care Center



JAL FHCC: Key IT Capabilities

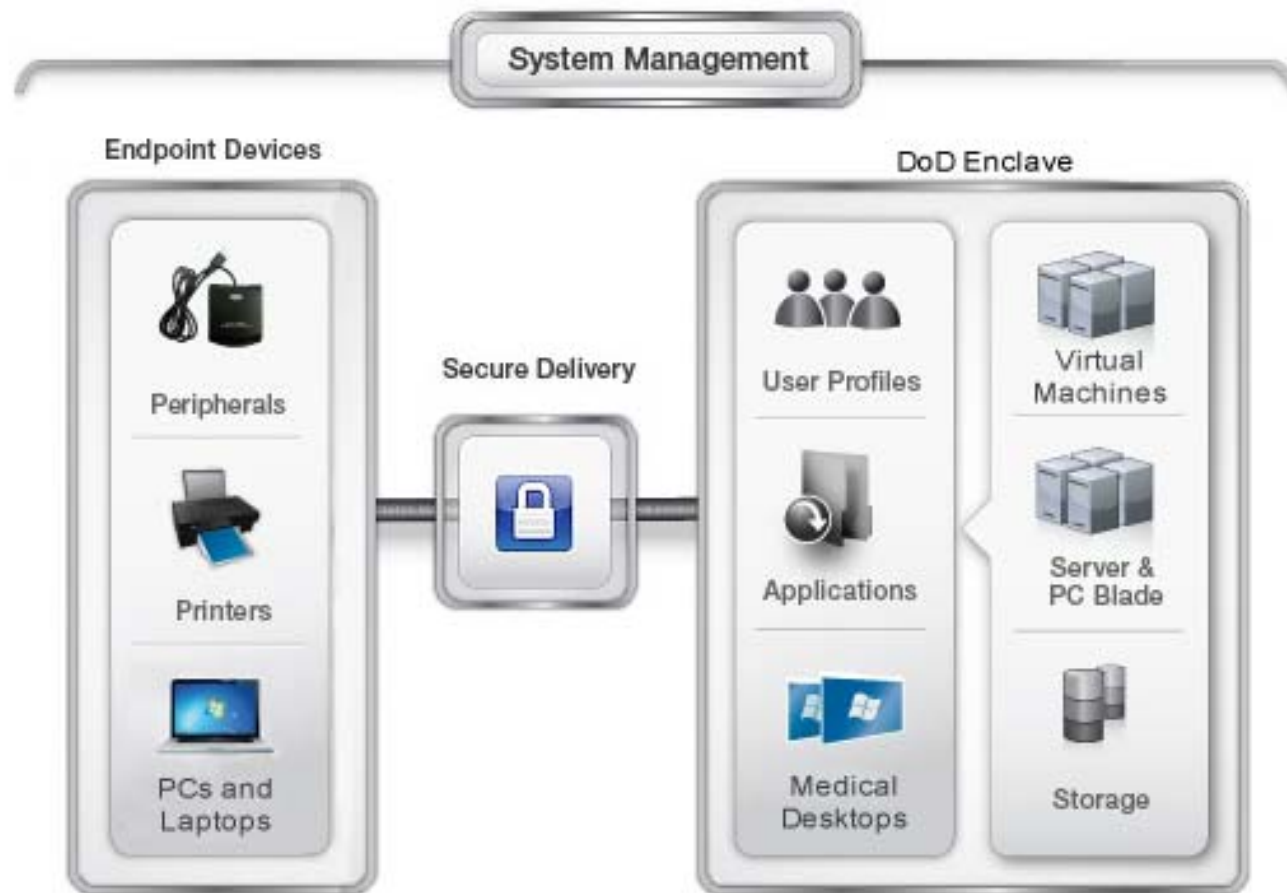
- Single Patient Registration
 - Register and update patients with single user interface
 - Register, verify eligibility and update patients through native DoD and VA systems
 - Common service, built once, used on both DoD and VA systems
- Medical Single Sign-On with Patient Context Management (MSSO/CM)
 - Users log in once and have access to multiple systems
 - Select the patient once and active clinical applications display patient's data with assurance that this is the correct patient
- Orders Portability: Laboratory, Pharmacy and Radiology
 - Place an order and the order automatically goes to filling/execution location regardless of which system is used
 - Update order status regardless of system, completing the order
 - Return results to the system where the order originated

Final Enclave Design – JALFHCC Architecture Concept



Hardware Platform: Enterprise Level Virtualized Information Services (ELVIS)

- Will provide a common infrastructure service platform or “Platform as a Service” for the MHS



Common Graphical User Interface (GUI)

The screenshot displays the Military Health System interface for patient Johnny Smith. The top navigation bar includes the patient's name, various system logos (JMS, Essentris, Vita, HAIMS), and a welcome message. The left sidebar contains navigation links for Patient Search, Patient Data, and Patient Summary. The main content area is divided into several sections: Patient Demographics, Allergies/Adverse Reactions, Problems, Active Medications, Clinical Results - AHLTA, Recent Lab Results, and Vitals.

Patient Demographics

Smith, Johnny | FMP + SSN: 20-296-66-8777 | Sex: M | DOB: 03/09/1981 (28 Y) | Provider: Boyd, Pat | Rank: E4 | Face Sheet | Flags | Reminders

Allergies/Adverse Reactions

Causative Agent	Source	Reaction	Symptoms	Originated
Spironolactone	VA San Diego	Adverse Reaction	Rash	04/13/2008
Penicillin	VA San Diego	Adverse Reaction	Itching	02/25/2007
Chocolate	VA Puget Sound	Allergy	Diarrhea	02/25/2007

Problems

Problem	Source	Status	Recorded
Gout (274.9)	VA San Diego	Chronic	03/28/2008
Heart Valve Replacement Status (V43.3)	VA Puget Sound	Active	04/20/2007
Congestive Heart Failure (428.0)	VA Puget Sound	Active	04/13/2007
Diabetes Mellitus Type II (250.0)	VA Puget Sound	Chronic	04/12/2007
Tobacco Use Disorder, Remission (305.1)	VA North Chicago	Active	09/08/2006

Active Medications

Medication	Source	Dose	Route	Schedule	Order Date	Ordered By	Status
Non-VA Aspirin Tab	VA San Diego	81 MG	Oral	QAM	07/11/2009	Smith, John	Active
Captopril	VA San Diego	25 MG	Oral	TID	06/12/2008	Jones, Larry	Active
Albuterol 0.5 ML %	VA San Diego	0.5 ML 0.5%	Oral	Q4H PRN	08/18/2008	Smith, John	Active
Digoxin	VA Puget Sound	0.25 MG	Oral	QDAY	05/21/2009	Brown, Robert	Active

Clinical Results - AHLTA

Recent Lab Results

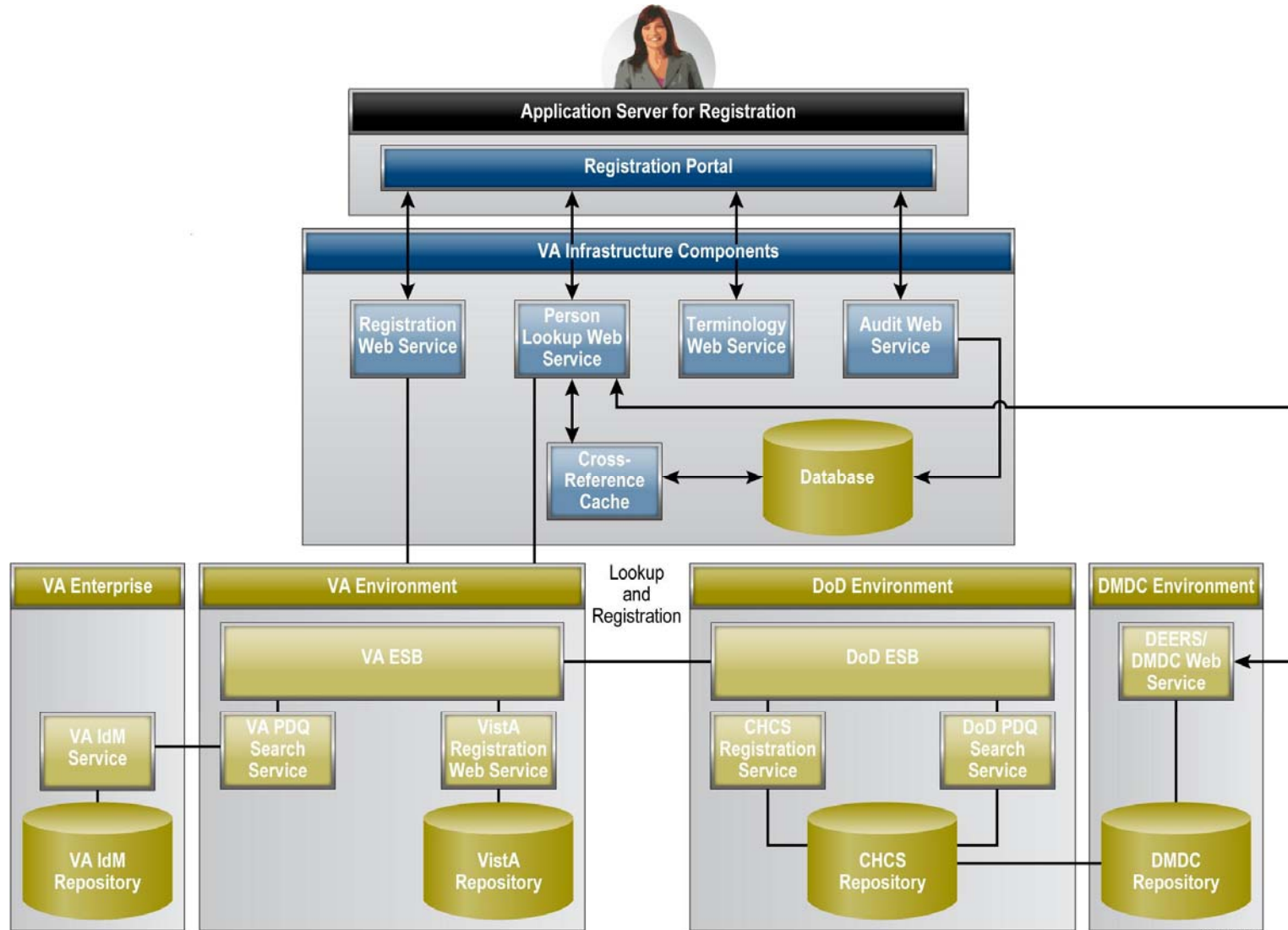
Test Name	Result	Date/Time	Source
LDL Cholesterol Blood (0 - 130 MG/DL)	103	08/03/2009 13:05	Camp Pendleton
HDL Cholesterol Blood (40 - 60 MG/DL)	63 H	08/03/2009 13:05	Camp Pendleton
Triglyceride (0 - 249 MG/DL)	209	08/03/2009 13:05	Camp Pendleton
Cholesterol (0 - 199 MG/DL)	136	08/03/2009 13:05	Camp Pendleton
Glucose (60 - 110 MG/DL)	112 H	08/03/2009 13:05	Camp Pendleton
CO2 Blood (23 - 31 meq/L)	25	07/23/2009 10:00	Camp Pendleton

Vitals

Vital	Value	Date/Time	Source
Temperature	98.4 F	08/03/2009 10:00	Naval Med Center San Diego
Pulse	78	08/03/2009 10:00	Naval Med Center San Diego
Resp	16	08/03/2009 10:00	Naval Med Center San Diego
Pulse Ox %	98	08/03/2009 10:00	Naval Med Center San Diego
Blood Pressure	132/78	08/03/2009 10:00	Naval Med Center San Diego
Height	71 in	06/03/2009 13:00	Naval Hosp Camp Pendleton
Weight	173 lbs	06/03/2009 13:00	Naval Hosp Camp Pendleton
BMI	24.6	06/03/2009 13:00	Naval Hosp Camp Pendleton
Pain	4	06/03/2009 13:00	Naval Hosp Camp Pendleton

Initial deployment will serve as a portal or launch point for medical capabilities; Unifies the users view by integrating data from multiple systems into user customizable portlets

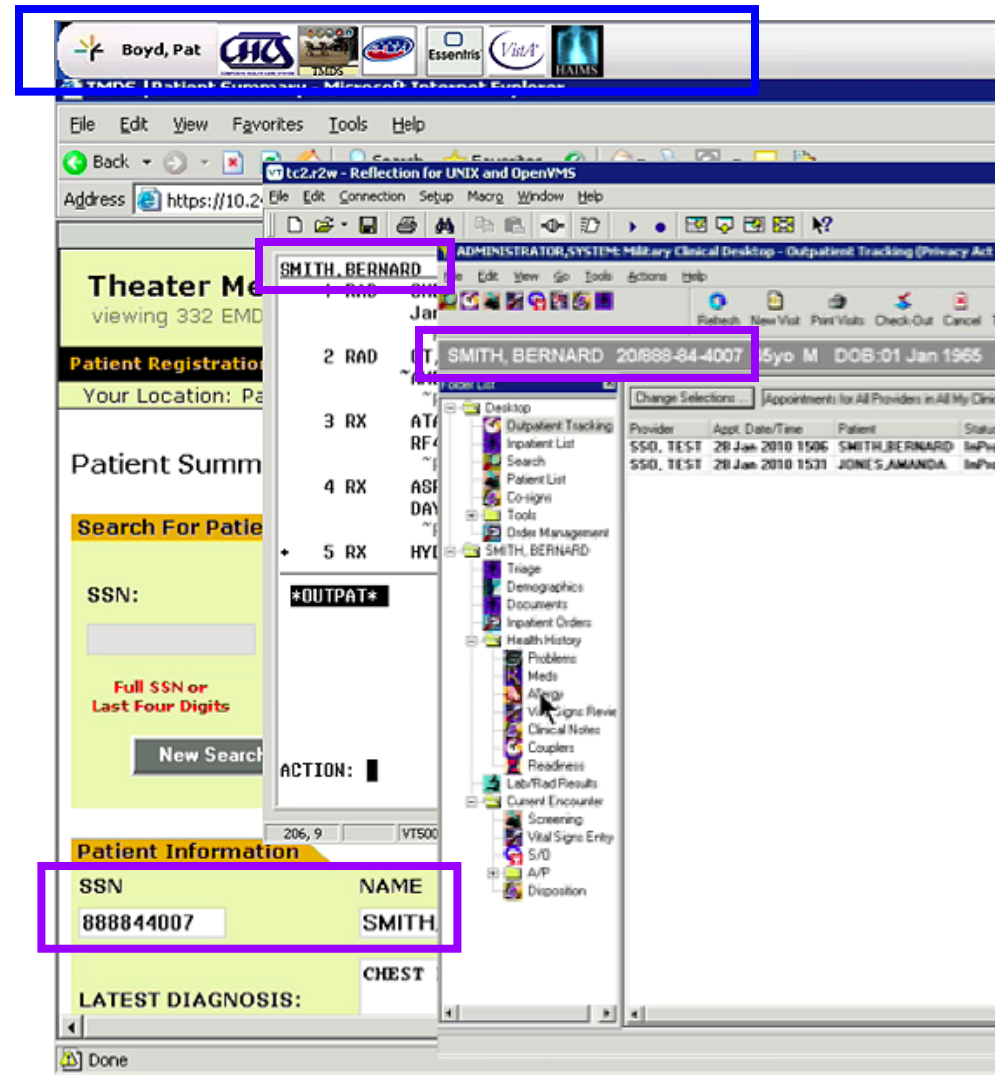
Single Patient Registration (Architectural Concept)



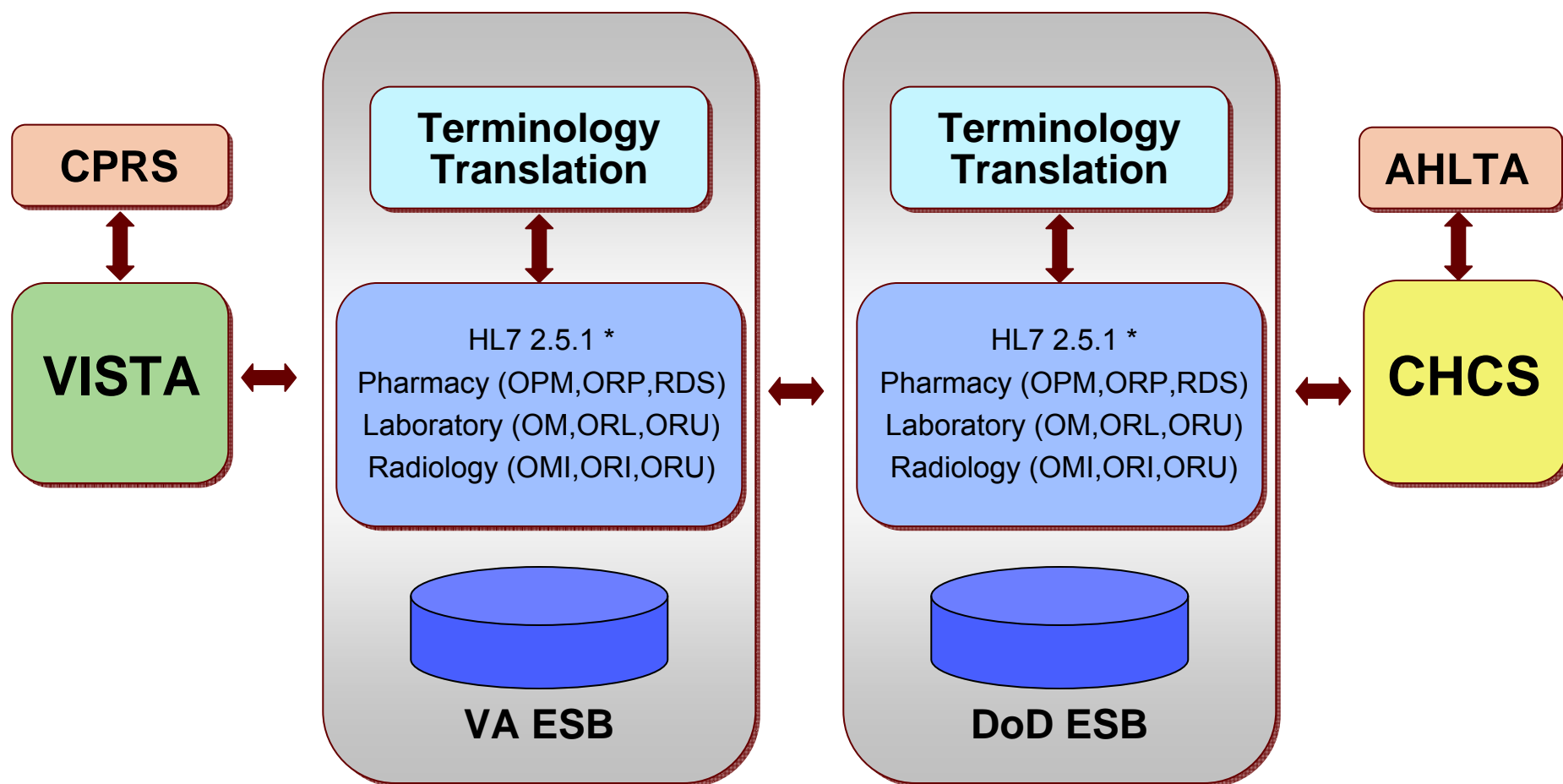
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Medical Single Sign-On with Context Management (MSSO/CM)

- Single Sign-On - integrates the users workspace by allowing a single sign on between medical applications
- Context Management - extends the user workspace integration by maintaining the same patient (context) between each application (e.g. AHLTA, CHCS, TMDS)



Orders Portability Architectural Concept



* Message Types

AHLTA/CHCS Stabilization Activities

- Not just another fix but a fundamental restructuring of AHLTA and CHCS to work together as one logical system
- Change point to point interfaces to loosely coupled services in alignment with DoD Enterprise Architecture
- Integrate clinical information by eliminating stovepipes and duplicate data to support clinical & business decisions
- Simplifying the AHLTA architecture for ease of deployment & maintenance
- Improve the user experience by integrating AHLTA and other clinical applications in a unified graphical user interface (portal)

AHLTA 3.3 Service Pack 1

- Provides more than 200 user requested fixes including enhanced printing, Web-enabled modules and initial medication reconciliation capabilities

The image displays two screenshots of the AHLTA 3.3 Service Pack 1 interface. The left screenshot shows the 'Medication Reconciliation Worksheet' for patient BORST, SARAH ANN. It lists medications like Ibuprofen and Aspirin with checkboxes for 'Still Taking As Prescribed', 'Not Taking', and 'Taking, But Not As Prescribed'. The right screenshot shows the 'Medication Worksheet View' for the same patient, displaying a list of prescriptions with details such as dosage, frequency, and expiration date. Both screenshots include a header with patient information and a footer with a privacy notice.

Privacy Act of 1974/FOUO)

Stop Print WebPage Close

02/599-30-8001 20yo F FM: Ret:PETTY OFFICER FIRST CLASS DOB:18 Nov 1987

Appointments Med Recon Print

Patient: BORST, SARAH ANN Age: yo Date: 27 Aug 2008 12:44 Medication List View Print

Medication Reconciliation Worksheet

Are you still taking these medications?

Ibuprofen (Motrin Eq.) Tablet 600 mg Oral PRN #30 RF1
Refills Left: 1 of 1 Ordered By: BENSON, JOAN on 17 Jul 2008 Order Expirations Date: 17 Jul 2009 Facility: NBHC Groton Origin: DoD Order Status: Active Last Filled Date: 21 Jul 2008
☐ Still Taking As Prescribed ☐ Not Taking ☐ Taking, But Not As Prescribed Comments:

Aspirin (ZORprin Eq.) Tablet Controlled/Sustained Release 800mg Oral TAKE ONE TABLET TWICE A DAY
Refills Left: NR Ordered By: P10814 on 14 Apr 2006 Order Expirations Date: Not Recorded Facility: NBHC Groton Origin: DoD Order Status: Active Last Filled Date: 14 Apr 2006
☐ Still Taking As Prescribed ☐ Not Taking ☐ Taking, But Not As Prescribed Comments:

Please list any other medications you are taking, including Over The Counter medications & herbals (include Dosage)

Patient: BORST, SARAH ANN Age: yo Facility: Naval Branch Health Clinic Groton

THIS INFORMATION IS PROTECTED BY THE PRIVACY ACT OF 1974 (PL-93-579). UNAUTHORIZED ACCESS TO THIS INFORMATION IS A VIOLATION OF FEDERAL LAW. VIOLATIONS WILL BE PROSECUTED.

Med Recon Print

Patient: BORST, SARAH ANN Age: yo Date: 27 Aug 2008 14:23 Medication Worksheet View Print

Medication Checklist

Please Pick-Up these Prescriptions

Please Continue These Medications

Eq.) Tablet 600 mg Oral PRN #30 RF1
Ordered By: BENSON, JOAN on 17 Jul 2008 Order Expirations Date: 17 Jul 2009 Facility: NBHC Groton Origin: DoD Order Filled Date: 21 Jul 2008

Eq.) Tablet Controlled/Sustained Release 800mg Oral TAKE ONE TABLET TWICE A DAY
Ordered By: P10814 on 14 Apr 2006 Order Expirations Date: Not Recorded Facility: NBHC Groton Origin: DoD Order Filled Date: 14 Apr 2006

Prescriptions are Expired or have been Discontinued by your Provider
Please dispose of any remaining doses, unless you have a new prescription for the EXACT same medication and dose

Hydrochloride (Methylan Eq.) Tablet 5 mg Oral TID
Ordered By: P10814 on 14 Apr 2006 Order Expirations Date: 14 May 2006 Facility: NBHC Groton Origin: DoD Order Filled Date: 14 Apr 2006

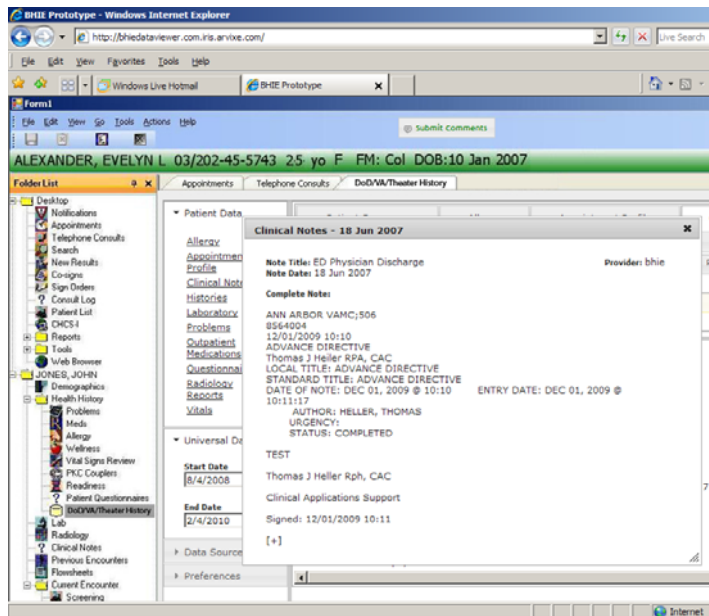
amin C Eq.) Tablet 500mg Oral TAKE ONE TABLET BID
Ordered By: P10814 on 14 Apr 2006 Order Expirations Date: 14 Apr 2007 Facility: NBHC Groton Origin: DoD Order Filled Date: 14 Apr 2006

Eq.) Tablet 20mg Oral T1 TAB PO QD #90 RF3
Ordered By: P10803 on 10 Mar 2006 Order Expirations Date: 10 Mar 2007 Facility: NBHC Groton Origin: DoD Order Filled Date: 10 Apr 2006

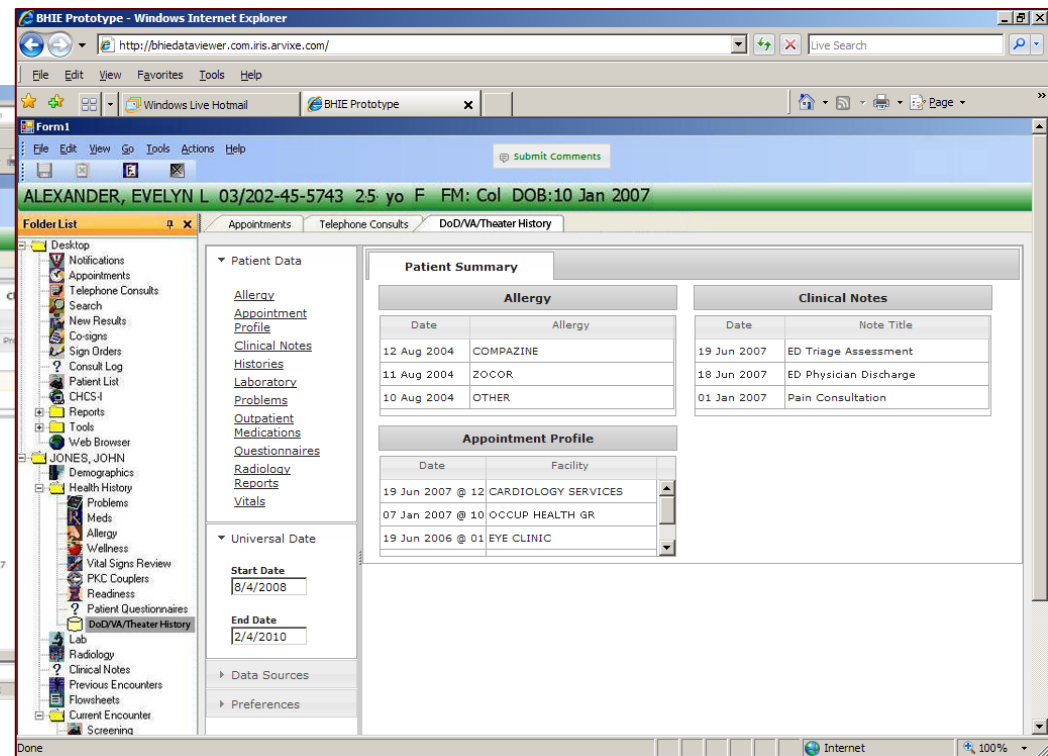
Patient: BORST, SARAH ANN Age: yo Facility: Naval Branch Health Clinic Groton

Bidirectional Health Information Exchange (BHIE) DoD Version 5

- Improves and expands DoD and VA information sharing
 - Leverages national standards such as the NHIN, portlets and DoD/VA established sharing standards



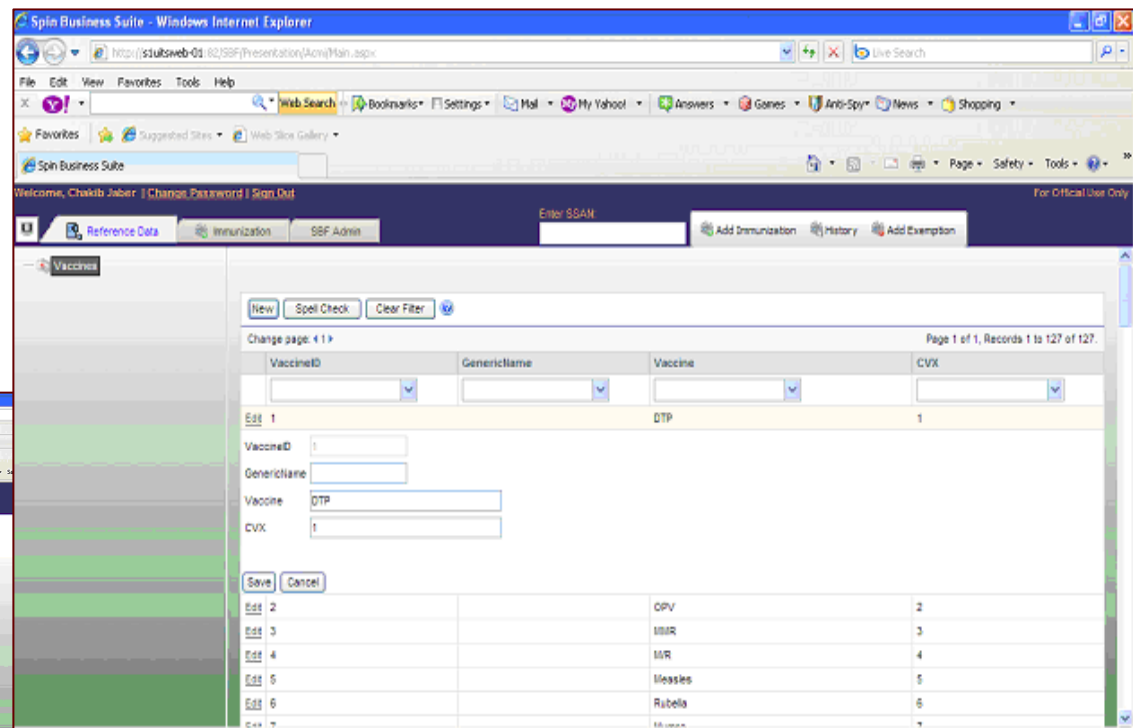
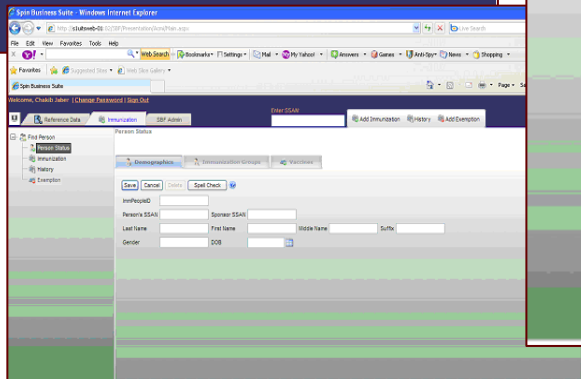
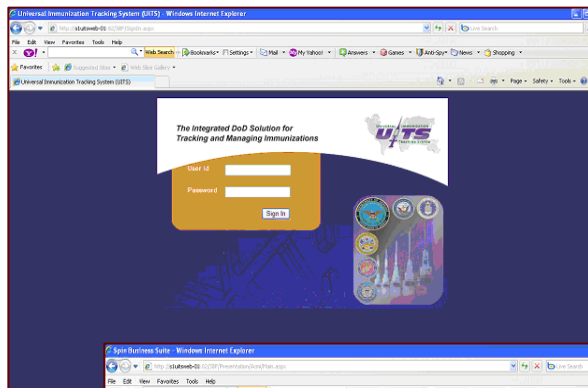
Clinical Notes View



Patient Summary View

Universal Immunization Tracking System (UITS)

- Consolidates Service immunization systems into a single system within the clinical workflow with reporting to Service readiness systems



Essentris Expansion



- Expands enterprise deployment of the MHS Inpatient documentation system with Emergency Department capabilities and data sharing with the VA

The screenshot displays the Essentris software interface, which is used for managing medical orders and documentation. The interface is divided into several sections:

- Top Bar:** Displays patient information including Name (TRAIN-4 xxxlynn.thomas), Unit (TRAIN), and various identifiers like EMP ID, Reg. Page, and Admit Date.
- Left Panel:** A navigation menu with tabs for Blood Products, Crystalloids, Labs, and Medications. The Medications tab is currently selected, showing a list of drugs and their dosages.
- Main Window:** Contains a table of medications with columns for Name, Dose, Route, and Frequency. The table lists various drugs such as ENOXAPARIN, DOXILATE, and ACETAMINOPHEN.
- Right Panel:** A form titled "BLOOD OR BLOOD TRANSFUSION" with sections for requisition, pre-transfusion testing, and record of transfusion. It includes fields for patient information, blood type, and a section for the requesting physician's signature.

Neurocognitive Assessment Tool (NCAT)

- Provides means to test, document, monitor and report on mild traumatic brain injury (mTBI)

NCAT Performance Report			Test Date: August 04, 2009 2:53 PM CLINICAL POST-INJURY Setting: GARRISON																																																												
ID: *****2222 Name: SAM EDWARD SAMUELS Rank: Service: OTHER DOD PERSONNEL Status: DEFENSE CONTRACTOR																																																															
Age: 40	Gender: M	Session: 3																																																													
			SUMMARY PERFORMANCE INDICATOR Source: Comparison Group  (A)VERAGE OR ABOVE BELOW AVERAGE CLEARLY BELOW																																																												
DISCLAIMER The information provided in this report does not represent medical advice, diagnosis, or a prescription for treatment. Providers should use these results in conjunction with a complete medical examination.*																																																															
HISTORY <table border="0"> <tr> <td>Injury cause(s):</td> <td>Resulting in:</td> <td>Symptoms Right after Injury: Headaches</td> </tr> <tr> <td>Fight</td> <td>Dazed, confused, saw stars Bleeding from the ears</td> <td>Symptoms Now While Resting: none recorded.</td> </tr> <tr> <td></td> <td></td> <td>Symptoms Now after Exertion: none recorded.</td> </tr> </table>						Injury cause(s):	Resulting in:	Symptoms Right after Injury: Headaches	Fight	Dazed, confused, saw stars Bleeding from the ears	Symptoms Now While Resting: none recorded.			Symptoms Now after Exertion: none recorded.																																																	
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REFERENCE Category lower limits for Below Average (9th percentile, 80.5 standard score) and Clearly Below Average (2nd percentile, 70 standard score) are based on Hannay, H. J., & Lezak, M. D. (2004). The neuropsychological examination: Interpretation. In M. D. Lezak, D. B. Howieson, & D. W. Loring (Eds.), <i>Neuropsychological Assessment</i> (pp. 133-156). New York: Oxford University Press.																																																															

Secure Behavioral Health

- Provides secure group and individual behavioral health documentation within the AHLTA workflow

PGS300JKH1LARL.vangent.local VMware Player Devices

SHEPSIX, ONE: AHLTA (Privacy Act of 1974/FOUO) ***Failover Mode - Enterprise Data Not Available***

File Edit View Go Tools Actions Help

DOE, JOHN 20/899990002 21yo MALE DOB: 18 Sep 1988

Folder List

- Desktop
- Appointments
- Search
- List Management
- CHCS-1
- EWSR
- Web Browser
- Co-signs
- Tasking
- Template Management
- SMITH, JAMES H
- Demographics
- Health History
- Allergy
- Lab
- Medis
- Radiology
- Problems
- Immunizations
- MODS/MEDPROS
- BH NOTE
- Previous Encounters
- Current Encounter
- Screening
- Vital Signs Entry
- S/O
- Drawing
- A/P
- Disposition

Reminders

Appointments Web Browser BH NOTE

DOE, JOHN - BH1

20/899990002 21yo M DOB: 18 Sep 1988 | BH Notes Log Off | Provider Inbox | Change Patient Context

Notes Alerts Assessment Metrics Treatment Plans Patient Summary

Notes History | Create Note

Create Note

Provider: PROVIDER, 1

Clinic: AHLTA-T Clinic

Note Date: 20 Oct 2009 08:42

Status: In Progress

Assessments: No Assessments Found

Title of Note: Anxiety Followup

Treatment Intensity: Low

Risk of Harm to Self/Others: Low

Last Update:

Behavioral Health Note: (Maximum 40,000 characters)

40000 characters remaining

** Required field for Save * Required field for Sign

Cancel Save Draft Sign

Clinical Case Management and Disability Evaluation System

- Provides automated tools to support documentation, linking, monitoring and advocating for Service members and their families helping case managers better coordinate multiple services in a therapeutic manner across the continuum of care, disability evaluation process and benefits assessment

Wounded Warrior Clinical Case Management System Jim Williams | Logout

My Cases | Import Patients | Patient Assignment | Search CCM | Reports | Notifications | Clinical Practice Guidelines

Alerts

Case 84HDK-3	08/21/2009	Case 84HDK-3	08/21/2009
Message test 1	08/27/2009	Message test 1	08/27/2009
Message test 2	08/27/2009	Message test 2	08/27/2009
Message test 3	08/27/2009	Message test 3	08/27/2009
Message test 4	08/27/2009	Message test 4	08/27/2009

My Cases

Case Status: Open

Primary Case Manager: Surrogate Case Manager

Case	Patient	DOB	SSN	Progress	Status	Surrogate
View	Mandel, Jane	1/1/1970	***-**-4321	B	Open	Field, Sally
View	Mandel, Jane	1/1/1970	***-**-4321	R	Open	Watkins, Karen
Open	Mandel, Jane	1/1/1970	***-**-4321	B	Unopened	Unassigned
View	Tripper, Jack	7/3/1968	***-**-2365	B	Open	Unassigned
View	Lischer, Penny	10/10/2000	***-**-1111	R	Open	Watkins, Karen
View	Adams, Samuel	3/7/1986	***-**-9877	R	Open	Watkins, Karen
View	Kint, Clark	6/2/1965	***-**-3322	B	Open	Watkins, Karen

Viewing 1 - 10 of 16

Wounded Warrior Disability Evaluation System Jane Smith | Log Out

Home | Notifications | Reports

Case Summary

View Patient Details

Last Name: Tanner
First Name: Tom
Branch: Army
Case ID: DES1001
Status: Open

Case Progress Indicator

1 MEB Status: Completed Start Date: 06/01/09 End Date: 06/15/09	2 PEB Status: In Progress Start Date: 06/01/09 End Date: 06/15/09	3 Transition Status: Not Started Start Date: End Date:
--	--	---

Tracking Notes Documents Case Administration Health Records

Add Tracking Note

Tracking Note:

Status:

Forms

VA21-0819
NARSUM

Referred Conditions

Phase/Stage	Start Date	End Date
DES Pilot Goal	06/01/2009	
MEB Phase (Completed)	06/01/2009	06/22/2009
Referral Stage (Completed)	06/02/2009	06/10/2009
PEBLO RSM Initial Counsel	06/02/2009	06/04/2009
MSC Assignment	06/03/2009	06/05/2009
VA 21-0619 Section 1 Completion, STR Submittal	06/05/2009	06/06/2009
Commander Notification	06/07/2009	06/09/2009
LOD Request	06/09/2009	06/12/2009
Claim Development Stage (Completed)	06/11/2009	06/15/2009
Disability Examination Stage (Completed)	06/18/2009	06/20/2009
Medical Evaluation Stage (Completed)	06/21/2009	06/22/2009
PEB Phase (In Progress)	06/23/2009	
RSM Transition Phase (Not Started)		

Automated Duplicate Patient Reduction

- Initial deployment will reduce duplicate patient records using automated tools to ensure the highest integrity of patient information and proper identity

The screenshot displays the Instate Inspector v9.0.0.138 application running in a Windows Internet Explorer browser. The main window shows a 'Potential Duplicate' task for 11/2/09. The task status is 'Resolved' and the entity type is 'Identity'. The interface includes a navigation bar with 'Inbox', 'Search', 'Resolve', and 'Data Manager' tabs. Below the navigation bar, there is a table of records with columns: Rules, Tasks, SourceID, Score, Status, Name, Home Address, Social Security Number, Gender, Birth Date, Home Phone, and Mobile Phone. Two records are shown, both for 'ROGNE, DAN, G' with a score of 15.1 and status 'Resolved'. The first record has a source ID of 8:912163 and the second has 8:743227. Below the table, a 'Record Attributes' section compares the two records side-by-side, showing identical values for Name, Home Address, Social Security Number, Gender, Birth Date, Home Phone, and Mobile Phone. The status bar at the bottom indicates 'You are currently viewing: Identification Task, Trigger Record: B:912163' and 'system@localhost:16500 | Last Login: 2/5/10 2:22 PM'.

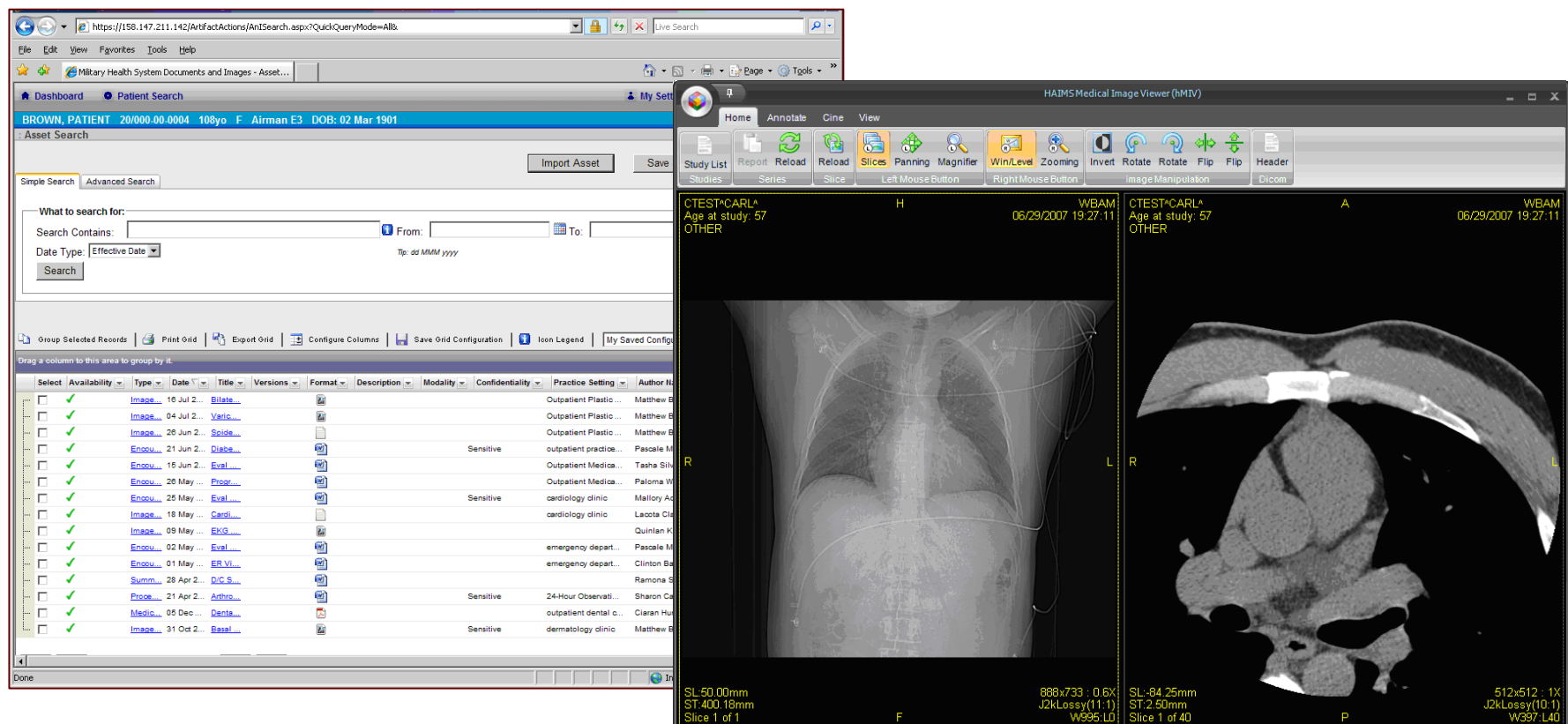
Rules	Tasks	SourceID	Score	Status	Name	Home Address	Social Security Number	Gender	Birth Date	Home Phone	Mobile Phone
Enterprise ID: 370292											
		8:912163	15.1	Resolved	ROGNE, DAN, G	15699 HOUSTON STREET SCOTTSDALE, AZ, 85262	317406570	M		4804934965	
		8:743227	14.9	Resolved	ROGNE, DAN	15699 HOUSTON STREET SCOTTSDALE, AZ, 85262	317406570	M	1922-06-09	4804934965	4802627009
Enterprise ID: 267521											

Record Attributes	ROGNE, DAN, G B:912163	ROGNE, DAN, B:743227
Name	ROGNE, DAN, G	ROGNE, DAN,
Home Address	15699 HOUSTON STREET SCOTTSDALE, AZ, 85262	15699 HOUSTON STREET SCOTTSDALE, AZ, 85262
Social Security Number	SSA:317406570	SSA:317406570
Gender	M	M
Birth Date		1922-06-09
Home Phone	4804934965	4804934965
Mobile Phone		4802627009

Healthcare Artifact and Image Management Solution (HAIMS)

Visit Booth
#3107
in Hall C

- Provides global visibility of PACS images and scanned or attached artifacts





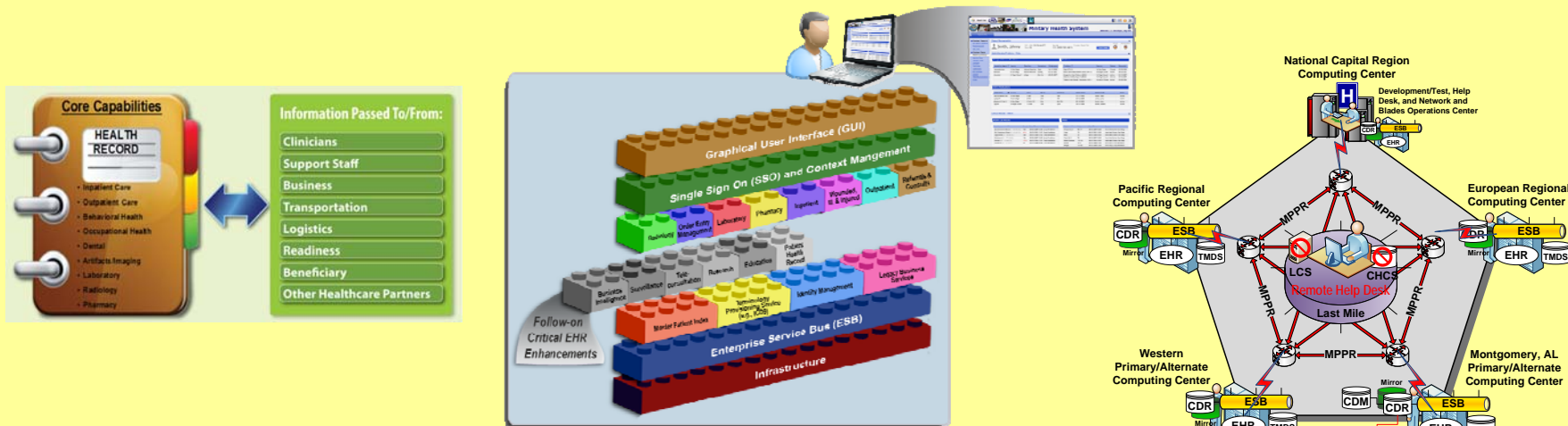
DoD's Electronic Health Record Way Ahead

DoD's EHR Way Ahead: Objectives

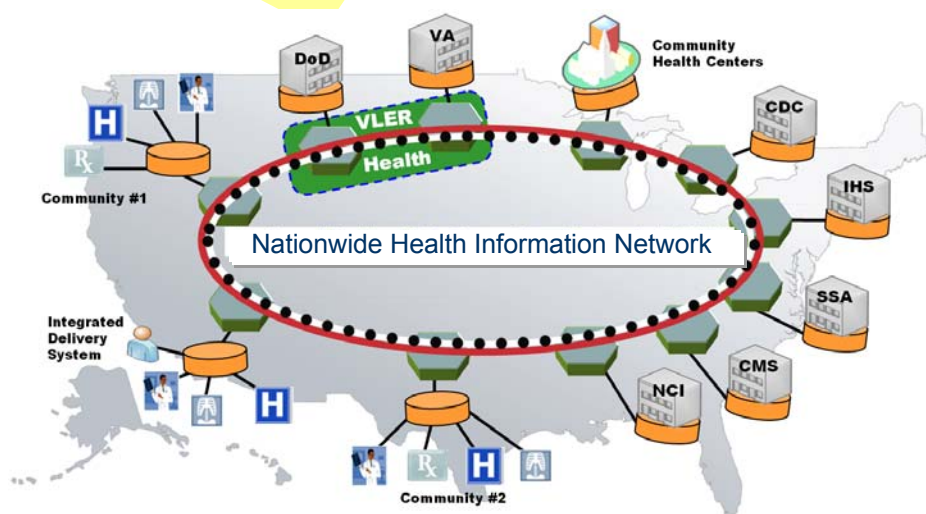
- Improve reliability, maintainability, completeness, accuracy, and timeliness of medical data captured and shared within DoD via an EHR
- Improve exchange of medical history data between VA and DoD
- Support medical data capture and exchange within the US Healthcare System - Private and Government (to include State and Local)



EHR Way Ahead – Strategic Direction



- **Stable EHR** - maximize reliability and availability to all taxonomies of care
- **Agile** - rapid development to adapt to evolving medical business practices
- **Responsive** - high performing system that is fast and user friendly
- **Extensible** - open standards based, open architecture
- **Data Sharing** - optimize continuity of care through seamless and transparent sharing of comprehensive health information
 - Virtual Lifetime Electronic Record (VLER)
 - Nationwide Health Information Network
- **Enhance Information Integrity** - ensuring the right information on the right patient/context is presented to the right user at the right time



Points of Contact

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- **Government/Commercial Sector Contracting – (RFI, RFP, RFQ and Acquisition Forums)**
 - POC: Aaron Street, Director, AM&S/COD at aaron.street@tma.osd.mil

Closing Slide

For more information visit:
Booth #3107 in Hall C

or on the Web at:
dhims.health.mil

**“Battlefield to the Homefront: Lessons Learned from the Premier
Global Electronic Health Record”**

Wednesday, March 3, 2010: 1:00 – 2:00 pm

CAPT Michael Weiner, Deputy Program Manager & Chief Medical Officer, DHIMS

“Protecting our Service Members as they Protect Us”

Thursday, March 4, 2010 – 10:00 – 11:00 am

MAJ Frank Tucker, Chief Technology Officer, DHIMS

Stayed tuned...



INNOVATE | PARTNER | DELIVER | LEARN